REMARKS

This responds to the Office Action mailed on November 17, 2005.

Claims 1, 3-16 and 18-30 are pending in this application. Limitations of previously canceled claim 2 appear in claim 1. Additionally, claim 6 is withdrawn.

Applicants note that there is an apparent typographical error on the summary page of the Office Action. Claim 5 is currently pending; thus, claims 1, 3-16 and 18-30 rather than claims 1, 3, 4, 6-16 and 18-30 as listed on the summary page.

§*102 Rejection of the Claims*

Claims 1, 3, 4, 20, 21, 24, and 25 were rejected under 35 USC § 102(b) as being anticipated by Imasu et al. (U.S. 6,461,896). Applicant respectfully traverses this rejection and requests the Office to consider the following.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), M.P.E.P. §2131, 8th Ed., Rev. 1).

Claim 1 therefore includes the limitation

> a molding compound cap ... including a third surface ... wherein the third surface ... includes ... *a substantially planar surface that is parallel planar to the first die active first surface*, and parallel planar located above the first die active first surface at a height that is a fraction of the die height.

(Claim 1, emphases added). The Office Action implies that Imasu et al. teaches "a third surface ... includes a ... substantially planar surface that is selected from parallel planar to first die, (Figure 2 #10), active first surface, and located above the first die active first surface ...." (Office Action at page 2). Applicant respectfully disagrees. Imasu et al. teaches only a continuously curvilinear surface that is part of his "adhesive 16". (Imasu et al. at column 5, line 16 and at FIG. 3). Because Imasu et al. does not teach all the limitations of claim 1, Imasu et al. does not anticipate claim 1. Withdrawal of the rejection is respectfully requested. Applicant notes that claims 3-9 depend from claim 1 and therefore are also not anticipated by Iwabuchi. Withdrawal of the rejections is respectfully requested.

Independent claim 20 as previously amended includes the limitation taken essentially from claim 2. Claim 20 therefore includes the limitation

> a mold chase including a profile that is capable of causing a molding cap compound ... that is substantially above the die active first surface and below the die backside second surface, and that forms a third surface that is substantially parallel to the die backside second surface

(Claim 20). Imasu et al. teaches only a continuously curvilinear surface that is part of his "adhesive 16". (Imasu et al. at column 5, line 16 and at FIG.3). Because Imasu et al. does not teach all the limitations of claim does not teach all the limitations of claim 20, Imasu et al. does not anticipate claim 20. Withdrawal of the rejection is respectfully requested. Applicant notes that claims 21-23 depend from claim 20 and therefore are also not anticipated by Imasu et al. Withdrawal of the rejections is respectfully requested.

Independent claim 24 as amended includes the limitation taken essentially from claim 2. Claim 24 therefore includes the limitation

> forming a molding cap compound ... third surface that is parallel planar and above the first die active first surface and below the first die backside second surface

(Claim 24). Imasu et al. teaches only a continuously curvilinear surface that is part of his "adhesive 16". (Imasu et al. at column 5, line 16 and at FIG.3). Because Imasu et al. does not teach all the limitations of claim does not teach all the limitations of claim 20, Imasu et al. does not anticipate claim 24. Withdrawal of the rejection is respectfully requested. Applicant notes that claims 24-30 depend from claim 24 and therefore are also not anticipated by Imasu et al. Withdrawal of the rejections is respectfully requested.

§103 Rejection of the Claims

Claim 28 was rejected under 35 USC § 103(a) as being unpatentable over Imasu et al. Applicant respectfully traverses the rejection and requests the Office to consider the following.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (M.P.E.P. § 2143 8th Ed, Rev.1).

Regarding claim 28, the Office Action makes a bare statement of unpatentability, that has no reference to how or where Imasu et al.teaches the limitations. Rather, the Office Action repeats, verbatim, a portion of claim 28, but does not refer to where such teaching is to be found or suggested in Imasu et al.. Because findings of fact have not been coupled with rulings of law, Applicant respectfully asserts that an inadequate statement of unpatentability has been made and therefore requests withdrawal of the rejection.

Applicant also notes the Office has characterized claim 28 as a product-by-process claim. This is incorrect. Claim 28 states "the process ... wherein forming ... includes injection molding." This is a process claim. Withdrawal of the rejection is respectfully requested.

Additionally because claim 28 depends from claim 24 and because Applicant respectfully asserts that all the limitations of claim 24 are not taught in Imasu et al., Applicant respectfully asserts that all the claim limitations are taught in the cited reference. Withdrawal of the rejection is respectfully requested.

Claims 5, 7-13, 22, 23, 26, 27, 29, and 30 were rejected under 35 USC § 103(a) as being unpatentable over Imasu et al. in view of Naka et al. (U.S. 6,727,583). Applicant respectfully traverses the rejection and requests the Office to consider the following.

Claims 5 and 7-9 depend from independent claim 1. Because Imasu et al. does not teach the limitation in claim 1 of "a molding compound cap ... including a third surface ... wherein the third surface ... includes ... a substantially planar surface that is parallel planar to the first die active first surface", and although Naka et al. may teach a second die, Naka also does not teach or suggest the limitations of the molding compound cap including the third surface as claimed. Because all the claim limitations are not taught in the cited references, withdrawal of the rejections is respectfully requested.

Independent claim 10 as previously amended includes the limitation taken substantially from claim 2. Claim 10 therefore includes the limitation

> *a molding compound cap* abutting the first die and *including a third surface* that originates substantially above the first die active first surface and below the first die backside second surface, and *that is substantially parallel planar to the first die backside second surface.*

(Claim 10, emphases added). Imasu et al. teaches only a continuously curvilinear surface that is part of his "adhesive 16". (Imasu et al. at column 5, line 16 and at FIG.3). Because Imasu et al. does not teach the limitation in claim 10 of "a molding compound cap ... including a third surface ... that is substantially parallel planar to the first die backside second surface", and although Naka et al. may teach a second die, Naka also does not teach or suggest the limitations of the molding compound cap including the third surface as claimed. Because all the claim limitations are not taught in the cited references, withdrawal of the rejections is respectfully requested. Withdrawal of the rejection is respectfully requested.

Applicant notes that claims 11-13 depend from claim 10 and therefore Imasu et al. and Naka et al. do not teach all the claims limitations. Withdrawal of the rejections is respectfully requested.

Claims 22-23 depend from independent claim 20. Because Imasu et al. does not teach the limitation in claim 20 of "a mold chase capable of causing a molding cap compound ... that is substantially above the die active first surface and below the die backside second surface, and that forms a third surface that is substantially parallel to the die backside second surface", and although Naka et al. may teach a second die, Naka also does not teach or suggest the limitations of the mold chase for causing the molding compound cap including the third surface as claimed. Because all the claim limitations are not taught in the cited references, withdrawal of the rejections is respectfully requested.

Claims 26, 27, 28, and 30 depend from independent claim 24. Because Imasu et al. does not teach the limitation in claim 24 of "forming a molding cap compound ... third surface that is parallel planar and above the first die active first surface and below the first die backside second surface", and although Naka et al. may teach a second die, Naka also does not teach or suggest the limitations of forming a molding compound cap third surface as claimed. Because all the claim limitations are not taught in the cited references, withdrawal of the rejections is respectfully requested.

Applicant also notes the Office has characterized claim 30 as a product-by-process claim. This is incorrect. Claim 30 states "process ... wherein forming the molding compound cap is selected from injection molding, *in situ* thermal curing, pick-and-place coupling the molding compound cap with the first die, and combinations thereof." This is a process claim. Withdrawal of the rejection is respectfully requested.

Claims 14-16 were rejected under 35 USC § 103(a) as being unpatentable over Imasu et al. in view of Iwabuchi (U.S. 6,434,017). Applicant respectfully traverses the rejection and requests the Office to consider the following.

Independent claim 14 as previously amended includes the limitation taken from claim 17. Claim 14 therefore includes the limitation

> a substantially planar surface that is parallel planar to the first die active first surface, and parallel planar located above the first die active first surface at a height that is a fraction of the die height

(Claim 14). Both Imasu et al. and Iwabuchi teach only continuously curvilinear surfaces, for Iwabuchi that is part of his "sealing resin 3" (Iwabuchi at column 4, line 11 and at FIG.3), and for Imasu et al. that is part of his "adhesive 16" (Imasu at column 5, line 16 and at FIG.3). Because Imasu et al. and Iwabuchi do not teach all the limitations of claim 14, alone or in combination, withdrawal of the rejection is respectfully requested. Applicant notes that claims 15-17 depend from claim 14 and therefore all claim limitations are also not taught or suggested, alone or in combination by Imasu et al. and Iwabuchi. Withdrawal of the rejections is respectfully requested.

Claims 18 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Imasu et al. in view of Iwabuchi and further in view of Naka et al. Applicant respectfully traverses the rejection and requests the Office to consider the following.

Regarding claims 18 and 19, these claims depend from independent claim 14. As set forth above, Imasu et al., whether alone or in view of Iwabuchi, does not teach the limitation in claim 14, of "a substantially planar surface that is parallel planar to the first die active first surface, and parallel planar located above the first die active first surface at a height that is a fraction of the die height". Naka adds nothing to remedy this deficiency. Because all the claim

limitations are not taught in the cited references, alone or in combination, a *prima facie* case of obviousness has not been established. Withdrawal of the rejection is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, John Greaves at (801) 278-9171, or Applicant's below-named representative to facilitate the prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

VASSOUDEVANE LEBONHEUR ET AL.

By their Representatives,
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Attorneys for Intel Corporation
P.O. Box 2938
Minneapolis, Minnesota 55402
(612) 349-9592

Date Dec. 14, 2005 By Ann M. McCrackin
Ann M. McCrackin
Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14th day of December, 2005.

Amy Moriarty

Name

Signature